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CHOLERA: ITS ORIGIN AND BEHAVIOR.

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There are few labors more rewarding in teaching invaluable knowledge, in correcting misconceptions, in guarding the mind from straying into devious and tortuous paths, than those employed in searching the ancient records of Practical Medicine. The very wisest among us may sit at the feet of Hippocrates and gather material for the warfare against disease. We are, at least, secure against the erratic frivolities of guess-work in endeavoring to find the cause of disorders. It is best to look at disease, whose cause lies beyond our ken, as those ancient masters did, and combat the symptoms. They observed facts, and let the inscrutable alone, and thereby avoided absurdities. They never even dreamed that sickness was imported from other countries, nor that it was sent by the gods. What a blessing it would have been to humanity if such truth had been accepted always. How beautifully does Oliver Wendell Holmes, the great poet of our profession, recognize the origin of the labors of Hippocrates in building the Temple of Medical Science:

"See where aloft its hoary forehead rears
The towering pride of twice a thousand years!
Far, far below the vast incumbent pile
Sleeps the gray rock from art's Egean isle;
Its massive courses, circling as they rise,
Swell from the waves to mingle with the skies;
There every quarry lends its marble spoil,
And clustering ages blend their common toil;
The Greek, the Roman, reared its ancient walls,
The silent Arab arched its mystic halls."

We need not go back to the medieval era and contrast it with the ancient records—a contrast of darkness with light, of wild, bewildering and utterly confusing chaos with clear, substantial, and healing lessons. If "the game were worth the candle," we should be better employed in comparing our own era, from 1830 down to the present time, with the absurd crudities of the devastating years of "Black death," "Sweating sickness," and "Dancing madness," as portrayed by Hecker. He indeed seemed to have imbibed, in an eminent degree, the spirit of the dreams that he recorded. Are not men now horrified with the idea of receiving any thing from Egypt, under the absurd idea that cholera may be wrapped up in a rag and let loose on this continent. Even packages of material for the paper-makers, under the fear that it may have come from Egypt, must not be landed on the American coast for fear of direful consequences. We have seen that the army of the Marquis of Hastings, terribly scourged with cholera, and tracked from the banks of the river where the disease was acquired to the hills of India to which his army fled by the skeletons of his soldiers that fell on the way, did not convey the disease to the people of the hills. When the army left the local condition that gave origin to the disease it utterly lost its power to produce it at any new place. We have clearly seen that the ship *Mangles*, in 1814, devastated with cholera at sea, could not impart the ravages of the disease to the southwestern coast of Africa, where the vessel landed with the disease on board. In 1832, 1833, and 1849, there were hundreds of people in this city who nursed the persons afflicted with the disease, with no more apprehension of catching it than they have of catching a toothache from a person suffering with that agony by passing him in the street. It has been indubitably shown, that of the hundreds who were with the sufferers in the calamity on Market Street between Tenth and Eleventh,

not a single one ever had any sign of the disease. Of the millions who have died with it, *not one ever took the disease, except by sleeping at night near the ground*, or contiguous to the cause. I have had every means that any man can have for learning every thing about this disorder that can be known. I never knew it to attack any person who habitually slept up-stairs in a second or third story of a clean house. I have known it to attack the persons in a row of buildings, on what is called the floor, near the ground, while every occupant in the second stories in the row of buildings remained as free from the disease as though it was not within a hundred miles of them. In an experience of fifty years in wrestling with the endemic, I have never known a departure from the facts inculcated in these two principles. Take one example from many hundreds: In 1866, Dr. Lieber, of this city, requested me to see a German family with him, on Hancock Street, between Jefferson and Green streets. One child was already dead; the father and another child were collapsed and dying. The family living upstairs, occupying rooms immediately over those in which these deaths occurred, helped to nurse the sufferers, to shroud and prepare them for burial, and they were perfectly free from any sign of disease. The wife was the only one of the family left alive. We had her cinchonized with enemas of quinine, and she was saved. The rooms were very neat and clean; the alley which was paved, running along the side of the house, was dry and clean, the back-yard was very clean, and contained a mass of growing vegetation in excellent condition. Dr. Lieber and myself opened the cellar, under the room of the dying man, and there we found the cause. A pile of damp wood in a decaying condition was used to prop up beer kegs, and the cause of the destruction of this family was self-evident. Those were the only cases in all that part of the city. Another striking instance of the law of this poison, that it strikes those who sleep at night near the ground, I reported, in 1833, in an account of the endemic at Simpsonville, twenty-two miles from Louisville. It was on the turnpike road, leading from Louisville to Frankfort. That was the year of the dreadful endemic of cholera at Lexington, Ky. Mr. Dabney kept a hotel at Simpsonville, and was one of the most noted hotel keepers in the State. The stage horses were kept at his stables, the stables being near his residence. In very hot weather the stables and stable-yard were cleaned out, and many cart loads of this material were hauled out and spread out on a sloping part of his farm, opposite his dwelling. The cholera was quite sharp in Simpsonville, and it assailed the home of Mr. Dabney. He was the only one of his family who slept down stairs, and he was the only one of his family attacked. There were other cases in Simpsonville, which I recorded in the Transylvania Journal of Medicine, each of which strongly bore testimony to the fact that the disease is due to solar temperature of over a daily mean of 60° for two months, moisture, and decaying vegetable material; but I forbear to call them up now because of the pressure of other cases. But I hope that, in relation to that record of cases in 1833, I may be pardoned for mentioning one incident in connection with Professor Caldwell. He had been my teacher in Transylvania. During the ravages of cholera in Lexington, in 1833, he was in Boston, filling an engagement. On his way home he came through Louisville, and called at my office. During our conversation, he said, "You and your old master," alluding to Dr. John E. Cooke, "are perfectly correct in your treatment of the disease, but are both wrong as to its cause." I had published in the preceding year the first paper on its malarial cause that had ever appeared. I had become convinced, in 1833, that cure of the disease was impossible. I replied, "Are you the author of the paper in the Transylvania Journal of Medicine reviewing the Cholera Gazette of Philadelphia?" He said, "Why do you wish to know?" I said that "I wished to answer it, and wrote to the editor for permission, and did not receive it." "Well," said Professor Caldwell, "are you still desirous of doing this?" I at once said I was. He then said, "Prepare your paper; send it to me. It shall appear; but I promise you the severest thrashing that any man ever received." I said, "I cheerfully accept your terms." The paper was prepared with all the care that I could exercise, and sent to Prof. Caldwell, at Lexington. It was published in the Transylvania Journal, but I never received the promised thrashing, nor did I fear it. He had published an essay on malaria, which took the Boylston prize at Boston. In it he gave what was then considered the chief laws of that poison, its origin, and mode of action. In my paper, I ranged my cases, scattered over a wide expanse of territory, under each one of the laws Professor

Caldwell had mentioned, and added some important laws that belong to the poison. I thus reduced him to the necessity of repudiating his prize essay, of which he was justly proud, or of accepting the truth of the doctrine inculcated; nor can it be met. He had encouraged me to the study of this subject all through my course in Transylvania.

I promised, in my last, that I would demonstrate the truth, that cholera originates as I say it does, and I proceed to the fulfillment of that promise. In August, 1850, immediately after the great outbreak on Market Street the preceding July, his Honor, J. M. Delph, Mayor of the city, with whom I co-operated on the night of the 24th of July in the Market-street calamity, called on me on his way up Jefferson Street, and asked me to go up to the corner of Jackson and Jefferson streets with him. We went together. I wish the reader to carefully note each point. There are four frame buildings on the south side of Jefferson, extending down from the west side of Jackson Street. On the north side of Jefferson, immediately opposite these frame buildings, were excellent brick houses, kept in a clean and good condition. The owner of the frame houses on Jefferson, had made shallow lots back of these houses, in order to have a lot, south of the houses, fronting on Jackson Street. This lot had a depth exactly equal to the frontage of the houses on Jefferson Street. Jackson and Jefferson streets had been graded and paved high above the natural depth of the lots on which the houses stood, and the houses, old when they were put there, had been placed on piles, without filling underneath the houses. The lot fronting on Jackson Street had no fencing on that street, and the city carts had found it a convenient place for dumping their loads of garbage, street scrapings, etc. A German had leased the lot south of this, about three feet from the edge of the lot I have described, had built a frame cottage on his lot, and lived there with his wife and child. When the mayor and myself reached the corner of Jefferson and Jackson, southwestern side, we found that cholera had caused deaths in every house on both sides of Jefferson Street, just as far as the depth of the Jackson-street lot extended. We found the floors so rotten in the frame tenements that poles were pushed through them almost as easily as if they had been made of paper, and the pole went down into mud from three to four feet deep under the floors. There were many hillocks, surrounded with water from the rains of July and August, in the vacant lot behind these houses. I stood in the German's house on the south side of this lot, and was able to easily reach the hillocks with a stick three feet in length. While death rioted beyond him, and crossed over to the north side of Jefferson Street, killing persons on both sides of the street just to the extent of the depth of the lot, going no farther up or down street, he and his family escaped, having no sickness of any kind. Why did these things occur? These were the only cases of cholera in all that region of the city. The south wind was the night wind of the locality. The poison was very close to the German's family, while it was fully fifty feet from some of the houses where it committed its ravages. The south wind wafted the poison into the houses fronting the unfenced lot, across Jefferson Street, and the scenes of the disaster were precisely the measure of the depth of the lot. The poison was carried away from the dwelling on the south side of the lot, and the German and his family were saved. A storm of wind would have dispersed the poison, but a breeze carried it very gently, and its ravages were fatal. All this occurred in that locality and was limited to it exclusively. Nothing of the kind occurred above nor below it, nor south of it.

The hillocks were leveled and deeply covered with sand, the floors of the frame houses were torn up, and the holes beneath the floors were filled up with sand; and thus the cause was removed. The ravages ceased under these sanitary measures, and from that time, about thirty-three years ago, down to the present moment, there has not been a more healthful part of the city than that in which these ravages took place in 1850. We did nothing to the north side of Jefferson Street. That part of the street had nothing to do with the formation of the poison. It received it as it was blown by the south wind from the place where it originated. We rendered a repetition of the origin impossible, and that closed the warfare with cholera for that season and forever at that place.

Dr. Robinson, of Manchester, England, details an interesting case that occurred at Liverpool. A vessel, after a long voyage, reached a dock at Liverpool, and was fastened to the wharf. During the night the captain was awakened to the fact that his crew, on the side of the vessel next the shore, was dying with cholera, the crew on the other side of the vessel being perfectly free from any thing of the kind. The ves-

sel was speedily detached from the shore and warped out to sea, where the disease was arrested. During the day, another vessel reached Liverpool, and was fastened to the dock that had been occupied by the other vessel. During the night there was a repetition of the scenes that had taken place on the other vessel. The crew on one side of the vessel were dying with cholera, while those on the other side were perfectly free from every thing of the kind. This vessel was speedily removed and the disease ceased. An investigation revealed the fact that a foul sewer of the city was choked up so that its liquid contents could not run out. Its pestilential air ravaged the sides of these two vessels next to it with cholera, while Liverpool was free from any thing of this pestilential character. The sewer was opened, thoroughly cleansed, and with that these one-sided ravages were stopped. Dr. Robinson deserves great credit for gathering and preserving these conclusive facts demonstrating the local origin of the disease, its night attacks among those who slept in the air poured out by that sewer, and the exemption of those who slept on the opposite sides of the two vessels. There were no attacks during the day; they were at night, and confined to those who slept in the air from the Liverpool sewer; and when the vessels were removed the disease ceased. In the presence of such facts as these, how crude, absurd, and contemptible are quarantines!

I now summon a witness who is clear, precise, and definite on the subject. There is no uncertain note in the voice of this witness. There is no hesitancy nor double dealing in the utterances. The testimony gives a lesson in sanitary science by which the whole earth might profit. The measures that were successful at that spot could be equally as triumphant and beneficent in any part of the earth. After surveying it, I beg the reader to carefully note the contrast in the neighborhood of the saved city, and let the truths in each case make an indelible impression on his memory. The facts, to borrow from the Apostle Paul, are profitable for self-teaching, for reproof, for correction, for instruction in healthfulness, that each citizen may be complete, furnished completely with every good work. Is it not the duty of good citizenship to be thus furnished? But to the testimony:

On May 21, 1849, Dr. Monmonier, Health Officer of Baltimore, addressed a letter to the mayor, calling his attention to the deplorable condition of the city and the impending danger of a cholera visitation. It already existed in New York, Philadelphia, Wilmington, and there were general bowel complaints in Baltimore. On the 24th of May an appropriation of $5,000 was placed in the hands of the Board of Health. Dr. Monmonier says this would have been but a drop in the bucket, but for the active, energetic exertions of nearly every citizen to cleanse the city from every sanitary nuisance. The determination was general, that if cleanliness could save Baltimore, it should be saved. There were over one hundred and sixty-nine thousand inhabitants in Baltimore. The city was thoroughly cleansed except at two spots, one unknown at the time, the other beyond the control of the Board of Health. By the time this cleansing work was accomplished, cholera was ravaging not only the places I have named, but Richmond, Va , Sandusky, Toledo, Chicago, and Cincinnati, thus showing that the precautions of Baltimore were taken in good time. Up to the 7th of July Baltimore continued to rejoice in her health. A wealthy merchant of the city had purchased a farm, between three and four miles north-west of Baltimore, and erected a spacious mansion on it. But, soon growing tired of a rural life, he sold it to the city for an alms-house institution. Two additions were made to the house, giving it a frontage of eight hundred feet. Four acres connected with the house were inclosed with a brick wall, and within this a hospital for negroes was erected on the east side; on the west side a four story building was constructed. This house had but one opening in the rear, a door leading into the yard. The east and west sides of the building were bountifully supplied with windows. There was a cess-pool between the rear end of the building and the inclosing wall. Along this northern wall were three small houses. In one was conducted the washing of the clothes of the inmates of the alms-house, in another the dead were washed, the third was the men's privy. I hope that the reader will carefully carry all these points in his mind. Outside of this north wall was a piece of ground seventy feet wide at the northeast corner, dwindling down to a width of nine feet at the northwestern corner. Dr. Buckler felt that he had performed his duty thoroughly. He had the interior walls and ceilings of all the buildings washed with soap-suds, and whitewashed. On the 7th of July cholera began its ravages in the alms-house, and they increased day by day. On the 19th of July

he called a meeting of the governors of the house, and proposed that they hire tents and camp the inmates out on a farm of two hundred acres. The governors adjourned without doing any thing. After the adjournment Dr. Buckler walked on the outside of the building, and reached the southeastern corner of the building. As he cast his vision along the wall about the negro hospital, he made a discovery. He went to the spot, finding a very filthy pig pen, and the cess-pool had overflowed the ground. From that point he walked to the northeast corner of the wall and surveyed the piece of ground, seventy feet in width here; it was full of rank-growing weeds, which deposited their leaves upon the wet ground, and this was found to be the case down to the part that was nine feet wide. The three houses along this north wall poured all their slops so as to have them run upon the ground outside the wall. Dr. Buckler felt that he had found the cause of the disaster to the alms-house. One other point needed clearing up. In the four-story building, with only one opening, a door, in the north side of the building, there were seventeen lunatics on the ground floor. Every one of them died with cholera. There was not another death in the building, although all the floors were occupied by inmates. Over the first floor, where all the lunatics died, there was an equal number of lunatics, but they all escaped. Dr. Buckler examined the space between the building and the wall, and discovered that the cess-pool had overflowed all the ground at that spot. England does not permit the existence of a cess-pool in her dominions. At the beginning of the cholera, there were six hundred and thirty-two inmates. There were fifty-three discharged, sixty two eloped; there were ninety-nine deaths from cholera. The wind from the north blowed the poisonous material through the three openings in the north wall upon the sleeping inmates. Among the ninety-nine that died with cholera there was not a recent admission; all were old inhabitants of the house.

Dr. Buckler secured help among the "night workmen" of Baltimore. They cut trenches across the space I have described, beyond the wall, attached a hose to the mill, washed the place thoroughly clean, and covered it with fresh dirt. The cess-pools and pig-sty were cleansed, and the disease entirely ceased. Dr. Buckler vindicated the truth of his judgment: he had found a cause that produced the disease; which, when modified, modified the disease, and which, when removed, removed it.

Now let the reader compare Baltimore with this state of things at her alms-house. Among upward of one hundred and sixty-nine thousand inhabitants there were but three attacks. Two of them were an old German woman and her son, on the Patapsco river. The attempts to get them to move were futile. The Board of Health could not force them from their premises. It was confidently believed that they would die, and they justified the prediction. The third, and only other death from cholera among the citizens, was a bachelor who lodged in a room opposite the City Hall. A very filthy alley, with a closed gate, ran along side of his sleeping apartment. A window opened upon this alley, and this sleeper died with cholera. In the rest of the city there were no other cases. Every city on earth can defend itself from cholera, as Baltimore did in 1849, with the same methods.

In the presence of these indisputable truths, a great government, of the most intelligent people on the earth, has its hair set on end by the possibility that rags sent to paper-mills in this country may have come from Egypt. The Khedive of Egypt can go into the hospitals and talk with the cholera patients—but we must be careful of rags. The demand is made that the rags shall not be landed, but sent to some desolate island and burned. Do these lunatics suppose that this is sufficient? What is to be done to the vessel and the living crew that brought the rags across the ocean? If the rags are perilous, are those who lived with them and brought them to this country harmless? In the face of what Neibuhr calls the "unspeakable spirit of this absurdity," why do not some of these madmen in sanitary matters order that the vessel shall be freighted with dynamite, require it to be exploded, and blow vessel, crew, and rags to atoms? And shall we not, while in this chimerical mood, proceed to blot out Egypt from existence, both present and future, and prevent her from ever being inhabited again? What right has she to vex the world more with this turnip lanthorn than Moses vexed Pharaoh with all the plagues inflicted on the land of Egypt? Shorn as she is of all her past glories, degenerate, miserable, wretched, and imbecile, the merest serf of slaves, kicked about like a foot-ball by those who desire to lord it over her remains, what right has she to become a scare-crow to the nations?

LOUISVILLE, KY.

Miscellany.

ARRANGEMENTS have been made for the introduction of the cinchona into Guatemala, the soil of which is thought to be favorable to the cultivation of the trees.—*Lancet.*

DR. HOLMES, two years ago, stitched the two ends of the musculo-spiral nerve together, five months after its complete division. He freshened the ends of the nerve and then united them with a suture. The wound soon closed and now, two years later, the muscles supplied by this nerve are well developed and as serviceable as before the accident.—*Northwestern Lancet.*

A FATAL accident has, we regret to learn, befallen Mr. Anderson, Surgeon to H. M. S. *Stork.* During a sporting trip up the Mayumba river a hippopotamus was wounded. The infuriated animal charged the boat, which was capsized, and three out of its four occupants, including the surgeon, were drowned. Mr. Anderson was making his first voyage as a naval surgeon.—*Lancet.*

A REMARKABLE INJURY.—A man's thorax was caught antero-posteriorly between the bumpers of two cars as he was coupling them. Death was instantaneous. At the autopsy no external injury was seen; several ribs on each side were broken, and the heart was found free in the abdominal cavity, it having been torn from its attachment to the great vessels and forced through a rent which was made in the diaphragm. It is rather difficult to understand how the violence could have acted so as to produce this result; most probably the man was stooping slightly forward when caught.—*Phil. Med. News.*

THE LOCAL APPLICATION of weak solutions of corrosive sublimate is being appreciated from all quarters. Oculists are using it with satisfaction in certain cases of conjunctival trouble—one grain in sixteen ounces of water; it certainly is an excellent application, used of course with care, in diphtheria. And the Therapeutic Gazette gives the mode of using it after labor by the renowned Tarnier at the Maternity in Paris: The solution used was 1 : 2000, with which the patient is washed and injected; afterward a compress dipped in the solution is applied to the genitals. During parturition a fresh compress is applied three or four times a day. As soon as any thing abnormal in the course of the lying-in patient occurs, frequent injections are made into the genital organs. The results were good. Of three hundred and fifty patients one died of an old peritonitis. No case of intoxication from the sublimate occurred. Sometimes the compresses irritated the outer genitals, the compresses were removed and the irritation ceased. Tarnier recommends that the bedding be disinfected beforehand. —*Weekly Medical Review.*

GUACHAMACA.—Dr. Carl Sachs brought this plant from Venezuela to Europe, and prepared an extract from it. (*Monatsschrift f. Deut.-Amer. Aerzte.*) Its action is similar to that of curare; besides it has the power of producing sleep, but this effect makes its appearance very late; in one instance in Prof. Frerich's clinic, after the injection subcutaneously of eleven milligrams the patient fell asleep three-quarters of an hour after the administration of the extract. The hypnotic effect continued for fully three hours, without any change in the circulation or respiration.—*Northwestern Lancet.*

AMERICAN SOCIETY OF MICROSCOPISTS.—The recent meeting of this society in Chicago was in every way a success. A number of valuable papers were read, those devoted to histological and pathological questions being of special interest. Bacteria, their influence in disease, and means for their destruction, claimed a full share of attention. Among the notable features of the occasion was a reception by the Calumet Club, and a display of three hundred instruments, presenting every variety of form and finish, with all the devices necessary to secure ease and precision in microscopic work. These, with appropriate preparations for study and display, made probably the most extensive microscopical seance ever held in this country. The society adjourned, August 10th, to meet next year in Rochester, N. Y.

FUNCTION OF SEMI-CIRCULAR CANALS.—Dr. William James, of Harvard University, has made some experiments to test the modern theory that the semicircular canals, instead of being connected with the sense of hearing, serve to convey the feeling of movement of the head through space, which, when intensified, becomes dizziness. (Popular Science Monthly.) It occurred to him that deaf-mutes, having their auricular organs injured, might afford some corroboration of the theory, if it were true, by show-

ing a smaller susceptibility to dizziness than persons with normal hearing. Of five hundred and nineteen deaf-mutes examined by subjecting them to a rapid whirling, one hundred and eighty-six were wholly insusceptible of being made dizzy, one hundred and thirty-four were made dizzy in a very slight degree, and one hundred and ninety-nine were normally, and in a few cases abnormally, sensitive. Nearly two hundred students and instructors in Harvard College, supposed to have normal hearing, were examined for purposes of comparison, and but a single one proved exempt from the vertigo.—*Weekly Medical Review.*

SEMMOLA ON THE PATHOGENESIS OF ALBUMINURIA.—Semmola, in a recent paper read at the Académie de Médicine (*Le Progrès Méd.*, June 16, 1883), states that he first, in 1850, pointed out the dependence of albuminuria on the quality of the ingesta, and that the increase after nitrogenous diet led him to adopt the view that the real disease was secondary, and that the primary departure from health was the failure to utilize the albuminoids in the economy. Later, in 1861, he proved that a healthy kidney could excrete albumen, but that, if prolonged, this led to anatomical changes.

His principal arguments for the hematogenous origin of albuminuria are, (1) The diminution of the excretion of urea from the commencement of the albuminuria, without its accumulation any where; (2) identity of the albumen excreted in Bright's disease with the serum of the blood; this is not the case in other forms of albuminuria; (3) the bilateral affection of the kidneys; (4) the confusion resulting from the anatomical point of view.

During the last few years, he has become convinced that differences in diffusion power lie at the bottom of this question. He has found, (1) That the albuminoids in the blood of Bright's disease diffuse more than the albuminoids of the blood in other forms of albuminuria; (2) that, in early stages of Bright's disease, if the blood be examined before and after the cure, the diffusibility of the albuminoids of the blood augments, diminishes, or stops in relation with the quantity of albumen in the urine; (3) that this physico-molecular constitution of the albuminoids of the blood is produced by more or less considerable default in the functions of the skin. He found that the blood of animals with varnished skins always contained diffusible albuminoids when the varnishing involved at least one half of their cutaneous surface. In these circumstances there was albuminuria, and the bile also contained albumen. He has collected a certain number of cases of chronic eczema and psoriasis, which alternated with albuminuria, and were finally cured by prolonged hydro-sudopathic treatment. He relates a curious case of seborrhea, which produced effects like those of varnishing the skin. The patient felt the least breath of air, was always cold, looked very cachectic, and had albuminuria. He was cured perfectly by similar active treatment directed to his skin, and the albuminuria has never reappeared.

Dr. Semmola thinks the causes of the diminished activity of the skin are generally cold and damp. These act insidiously, producing by degrees an increase in the diffusibility of the albuminoids, a diminution in the urea excreted, and finally the forced elimination of albumen by all the depurative channels of the body. The saliva and sweat, as well as the bile, may be shown to contain albumen. This is the explanation of the albuminuria of Bright's disease, as distinguished from other forms having a purely local cause, congestion, inflammation, etc. By injecting egg-albumen under the skin he has been able to produce all the phenomena of nephritis; thus proving that the continuance of this abnormal secretion may bring about inflammatory changes in the kidneys.—*Dr. Saundby, in London Med. Rec.*

[Prof. Semmola injects egg-albumen into the connective-tissue because he believes that the direct injection of this substance into the blood, as practiced by some experimenters, tends to produce disturbances in the system too profound for analogy with that state—characterized by increased diffusibility and diminished assimilation of the albuminoids in the blood—which he holds to be the first step in the pathogenesis of Bright's disease. He finds also that serum albumen will appear in the urine after injection into the subcutaneous connective-tissue, but that it is far less irritating to the kidneys than the more heterogeneous albumens. This observation is remarkable, since it would seem to disprove the statement made by most physiologists, that serum albumen injected into the veins of animals is not eliminated by the kidneys. Prof. Semmola, however, injected this substance into the areolar tissue, and its appearance in the urine may prove that in passing from this tissue to the blood the albumen undergoes such molecular change as to render it unfit for assimilation.]

HAGAR'S WELL, MECCA.—The following letter from Dr. E. Frankland, the eminent chemist, published in the Lancet of August 11th, will give our readers some notion of the filth contained in the drinking-waters of those countries where cholera commonly prevails: "The well is in Mecca. The water is regarded as holy, and large quantities are annually sent as gifts to all Mussulman countries. Most of the Mahomedan princes, especially those of India, have 'keepers of the well,' whose duty it is to send them annually water from the well." I have submitted this water to analysis, and the results which I append hereto appear to me so important as to warrant me in asking that they be brought specially under the notice of the Secretary of State for India in Council. The water is slightly turbid and has a saline taste. 100,000 parts of it contain in solution the very large proportion of 828.24 parts of solid matter, of which a considerable amount is organic and of animal origin. The water also contains an enormous quantity of nitrates—the usual product of the decomposition of animal excreta. The previous animal contamination calculated from the proportion of nitrogen as nitrates and nitrites shows that the liquid supplying this well contains in a given volume nearly six times as much animal matter as is found in the same volume of strong London sewage. This conclusion is confirmed by the presence of a very large proportion of common salt, one of the chief constituents of urine. The suspended matter in the water consists chiefly of dead bacteria.

In answer to my inquiries as to the surroundings of the well, and the authenticity of the sample, Mr. Zohrab writes me as follows: "In reply to your note regarding the water from Hagar's well brought home by me, I beg to state that it is authentic. It was brought to me last January from Mecca by a Mahomedan gentleman in whose good faith I have implicit confidence. I may also state that several Mussulmans at Jeddah, who had frequently tasted the water at the well itself, and to whom I showed what I had, assured me it was genuine. There is no difficulty whatever for a person at Jeddah to get any quantity of the water, as the well in Mecca is free to all, and any one may carry away as much as he pleases. I am not at all surprised at the water being heavily charged with excrementitious matter, and the reason, as I will now show, is evident. The city of Mecca, lying in a basin, contains a permanent population of about forty thousand souls, and annually during the Hadj (pilgrimage) from one hundred thousand to one hundred and fifty thousand pilgrims, who become residents for periods varying from one week to three months, crowd into it. This vast influx of strangers finds accommodation where it can; the well-to-do rent rooms, the poor live in the street. The houses in Mecca are generally built in flats to accommodate pilgrims; each flat is provided with one or two badly constructed latrines, and there are from six to twelve of these in each house. These latrines empty themselves into pits dug outside the houses. When these get filled they are emptied into other pits, which are made in the streets or at any convenient spot, and then covered over with earth. For the poor, latrines on the same principle are made in and outside the town, and the same method of emptying them is employed. This system of burying foul matter in every direction has been pursued for centuries; it is not, therefore, surprising that the ground in and around Mecca is surcharged with excrementitious matter, which rains (these are frequent in Mecca) carry by filtration into the wells. Hagar's well is not a spring, but its water is supplied by filtration—that is, by rain-water passing down through an overlying mass of foul matter. But there is yet another cause for the pollution of Hagar's well, this is the thousands of pilgrims, diseased or sound, who daily wash beside it, the water they use naturally finding its way back into the well."

Such being the surroundings of this holy well, and the composition of its water, there can be no doubt that here is a most potent source of cholera poison, for the evidence is most conclusive that cholera is propagated by a specific poison contained in the alvine discharges of persons suffering from the disease. Hagar's well, therefore, must, according to Mr. Zohrab's description, constitute a ready and efficient collector of the poison, and it would scarcely be possible to devise a more effective means for the diffusion of this poison throughout Mahomedan countries.

I presume that it would be quite impossible to get this well closed; but in the interests of the health of Europe and Asia efforts ought to be made to guard the water from this abominable and dangerous pollution. In the whole course of my experience I have never met with a sample of drinking-water making even a distant approach to the degree of pollution exhibited by the water of Hagar's well.

OPIUM SMOKING.—A recent writer in the China Review brings forward some statements which tend to refute the notion that opium smoking is an injurious habit. It appears, says McCallum, the writer referred to, that in the general composition of opium morphine, codeine, and narceine are the only bodies of any importance. Codeine and narceine give no sublimate; morphine can not exist, even in infinitesimal quantities, in opium smoke which has passed through an opium pipe. The opium smoke does not possess the well-marked bitterness of morphine. Smokers prefer that variety of opium which contains a small percentage of morphine. So far as is known, no authentic case of acute poisoning from opium smoking has been recorded. During nearly a four years' residence in Hong Kong, considerable attention was given to the subject, but not a single case of narcotism from indulgence in the opium pipe has been observed. We consider the last two statements extraordinary. Opium eating may be contrasted with opium smoking. The two habits may be combined or practiced singly. Hence, difficulties of determination may arise. But we were certainly under the impression that authentic cases of injurious effects resulting from the use of the opium pipe alone were admitted on all hands, and were, in fact, notorious.—*Lancet.*

THE AIR CURE OF CONSUMPTION.—Dr. MacCormac has recently published a pamphlet on "The Air-cure of Tubercular Consumption," upon which the Lancet remarks: "It is now some years ago since Dr. Henry MacCormac promulgated the theory that the *vera causâ* of phthisis was the respiration of prebreathed air. According to this view a healthy man constantly exposed to an impure atmosphere, rendered so by his own breathing or that of other individuals, is physically certain to become tubercular. Such a notion has been entertained by many high authorities, but, so far as we know, always rejected after due consideration. The infectiousness of phthisis is denied by Dr. MacCormac. He regards the experiments and investigations of Koch as completely overthrown by the researches of many pathologists, but more especially by those of Spina. It is evident that the pamphlet has been written in an excited and unhappy frame of mind."

THREE URETHRAS.—Dr. Luxardo, in *L' Union Medicale,* describes a rare anomaly of the penis in a young man with gonorrhea. The meatus presented three openings, corresponding to as many distinct urethral canals. The upper gave passage only to seminal fluid, the lower to urine, and the middle tube appeared to communicate with the lower one. The gonorrhea affected only the two inferior canals.

CORN-SILK FOR VESICAL CATARRH.—Mr. G. W. Kennedy writes, says the Pacific Med. and Surg. Journal, that the physicians of Schuylkill County, Pa., have, since the recommendation of corn-silk for catarrh of the bladder, used it with good results. As this remedy is used in cases where alcohol acts as an irritant, the best results have been obtained from preparations containing a minimum of alcohol, and accordingly the syrup (ʒ j to O j) and the fluid extracts are found to be the best forms in which to give it.

SUCCINATE OF IRON IN BILIARY COLIC.—Dr. Jas. A. Stewart, of Baltimore, revives the claim that the hydrated succinate of the peroxide of iron is efficient in the treatment of gall-stones. He reports one case in which a patient, a lady of forty, who had suffered for three months and was greatly emaciated, recovered health rapidly under dram doses of the succinate. There had been no trouble for two years.

PROPAGATION OF TUBERCULOSIS AMONG RABBITS.— Mr. Anthony Willows has lately proposed, says the Australasian Medical Gazette, by inoculating rabbits on a large scale, to rid Australia of these pests, which are terribly destructive to the crops and pastures of that country.

THE third International Otological Congress will be held in Bâsle, Switzerland, during the first week of September, 1883. The committee have enlarged their number by the addition, among others, of Drs. St. John Roosa, of New York, and Blake, of Boston.

DR. ROSEWELL PARK, of Chicago, has been appointed to the chair of Surgery in the Medical College of Buffalo, N Y. His retirement from the editorial staff of the Weekly Review and his removal to Buffalo are announced.

Two cases of tuberculosis of the male genito-urinary organs are reported in the Lancet, July 21st.

The Louisville Medical News.

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LUNSFORD P. YANDELL, M.D., - - }
H. A. COTTELL, M.D., - - - - - - } Editors.

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AN EDITORIAL LETTER.

Dear Readers:

Those who have not written for the public have little idea of the embarrassment a modest writer experiences in addressing his readers, even though he be no novice in the work. "I" sounds egotistical, "we" seems conceited, and "the writer" looks affected. Having decided upon one of these terms, one must adhere to it, at least throughout the article in hand. This is accomplished only by effort and practice. To avoid repeating "I," "we," or "the writer," so often as to offend good taste and too infrequently for perspicuity are likewise sore trials, at least to him who now addresses you. But three orders of men, by right, speak of themselves as "we." These are editors, royal personages, and people with tape-worms, said Mr. Prentice. Of these three he of the tape-worm possesses the clearest right to use this plural pronoun. Royalty, claiming divine authority, uses "we" in the sense, doubtless, of I and the Lord. Why editors thus style themselves is inexplicable, or at least unexplained save by the authority of custom. Medically speaking "we" is a symptom of the editorial cachexia.

Writing on the editorial tripod at home I am we. Writing away from home we are I.

Driven by physical and mental disability —due, it is comforting to ascribe, to overwork—to seek restoration of health, I am sojourning for a brief season at Belle Mead. A few weeks ago "we" wrote in the News about the follies of the "Silly Season." To the superficial reader of that editorial "our" present absence from home might seem to conflict with the sentiments therein expressed, but to the careful reader no such mistake is possible. Belle Mead is no "watering place," where people go for fashion's sake, and endure the horrors of small rooms, bad beds, weak coffee, and watered milk, canned vegetables, and stale fruit, in the midst of a promiscuous crowd. No, indeed. Belle Mead is one of the world's great stock farms, which has sent forth, and is yet to send, troops of thoroughbreds such as Job nor Jehu nor Phaeton ever saw or dreamed of, and herds of cattle such as Ulysses never cast eyes upon in all his travels in any land or island. In a noble mansion inhabited by hospitable friends, surrounded by thousands of acres of bluegrass and grain-fields and aboriginal forests, including a park containing more than a third of a thousand fallow deer, the sick senior of the NEWS is seeking and finding health. Whether it is better to be born lucky than rich is an open question; but certainly the poor doctor is lucky who has ever open to him such a resting place as Belle Mead. Barring parts of Kentucky and of England, I have seen no land so beautiful as this, nor is it probable that on the hither side of the kingdom of Heaven there lies a lovelier. When the deep silence of the country becomes oppressive, as it will do after a while to one long used to the hum and roar of cities, a quick ride of six miles behind a spanking team, over a perfect pike, brings one into Nashville. Here a few hours stay in the hurry and noise and turmoil of Tennessee's beautiful capital restores one's appetite for the peacefulness and calm of the "God-made"—the "man-made" serving one as the burning goats' hair did the cloyed olfactories of the luxurious, perfume-loving Egyptians.

"O, I could breathe this air till death

charmed away my mortal breath," one is tempted to exclaim, in the language of the song. But, alas! the life of the doctor is a hard one if he has a practice—and a harder one if he has it not. Therefore, like Macbeth's rat he must "do and do and do" if he would not let his little ones lack or suffer hunger; and after a few more suns he who pens these lines will be pulling the lines on his buggy horse in Louisville, as he drives to the homes of his clients, to the halls of the University, or to his publishers' printing house. Such is life! But, of a truth, life is not so bad a thing, after all; and is well worth living if the liver is well.

Vale, dear friends of the Louisville Medical News. "Would that ye all were not only almost but altogether such as I am this day, save these bonds" of dumb chills and dyspepsia.

L. P. YANDELL.

BELLE MEAD, TENN.

PLEURO-PNEUMONIA AMONG CONNECTICUT CATTLE.—It appears from a report recently received at the Treasury Department, and published by the Medical News of August 25th, that an outbreak of lung plague began in the town of Salem, Conn., early in July. On August 16th, but two herds of cattle on adjacent farms had been attacked, four only of the cases proving fatal.

Prof. Leantarel, of the American Veterinary College, and Dr. Rice, V.S., of Hartford, have examined the sick cattle, and pronounce the disease to be lung plague. The infected herds are now in quarantine, and it is believed that there will be no further extension of the plague. No satisfactory evidences as to the cause of the outbreak have been found. A cow brought from Jersey City, sometime last April, is under suspicion.

CHOLERA.—The death rate from cholera in Egypt is lessening day by day. The official returns show that, on August 14th the total mortality for Egypt was three hundred and seventy-six, and on the 15th four hundred and sixty-seven; but since this date there has been a rapid decrease in the numbers with each day, until on the 19th but one hundred and eighty-two deaths were recorded. At Cairo the disease appears to be dying out, but remains about stationary in Alexandria. On August 14th, fifty-five deaths were reported at Damanhoor. The total number of deaths from cholera among the British troops in Egypt from the outbreak of the disease to August 20th is one hundred and forty. On August 19th, another death from cholera was reported at Beyrout, Syria. While the disease is evidently waning in Egypt and Syria, it appears to be holding its own in India, two hundred and twenty deaths being reported from Bombay as having occurred during the two weeks ending with August 17th.

AMERICAN PRACTITIONER.—The American Practitioner for August announces that Dr. Theophilus Parvin has severed his editorial connection with this journal, the acceptance of the chair of Obstetrics in Jefferson Medical College, and his consequent removal to Philadelphia, being the cause. His successor is Dr. John A. Octerlony. While we sympathize deeply with our able contemporary in the loss it sustains by parting with so eminent a man as Prof. Parvin, we, at the same time, congratulate it upon having secured in his successor a gentleman of high attainments in medicine and literature. Than Prof. Octerlony, certainly no one is better qualified to do honor to the place so long and so ably filled by Prof. Parvin.

YELLOW FEVER is making considerable headway in the West Indies and Mexico, forty deaths from this cause being reported in Havana for the week ending August 18th, while at Vera Cruz the disease is raging with great violence. Meanwhile our Marine Hospital Service is putting the alleged value of quarantine to the test with excellent results.

Bibliography.

A METHOD PROPOSED TO SECURE CHILDREN AGAINST ATTACKS OF DIPHTHERIA. By F. Peyre Porcher, M. D., Professor of Materia Medica and Therapeutics in the Medical College of South Carolina, Charleston. Acting upon the theory that diphtheria (whether or not it may depend upon a specific germ) is at its inceptive stage local and has its seat in the fauces, which, if impressed or modified by suitable agents, will not offer a nidus for its reception, Professor Porcher proposes as a prophylactic the following:

℞ Tinct. ferri chlorid., . . .	2 to 3 drams;
Potassii chloratis, ...	2 to 3 "
Quiniæ sulph., ...	15 to 20 grains;
Sodii hyposulphitis, . . .	1 to 2 drams;
Alcoholis, ...	1 ounce;
Aquæ, ...	6 ounces.

M. Sig. A teaspoonful to dessertspoonful three times a day in water. To be used by those who are exposed to the disease.

The author has used this formula for a number of years as a prophylactic for diphtheria in many families whose members had been exposed to the disease, and states that he has never known a case of diphtheria to occur where it was so employed.

Evidence is not wanting from other sources of the value of the medicines above named, especially the muriated tincture of iron and potassium chlorate, both as a prophylactic and cure for diphtheria.

The same formula is said to be serviceable in scarlet fever. And with two or three drams of acid tartrate of potassium in lieu of the hyposulphite of sodium, it has proved of great value in the treatment of erysipelas, ulcerative sore throat, cellulitis, and diseases of the lymphatic system.

REPORT FOR 1882, 1883, of H. A. Newton, Director to the Board of Managers of the Observatory in Yale College, presented to them by the President and Fellows; to which is appended the report of the astronomer in charge of Horological and Thermometric Bureaus. New Haven: Tuttle, Morehouse & Taylor. 1883.

We have several times noticed the important work done by the Thermometric Bureau at Yale College.

By placing in the physicians' hands correct thermometers, the astronomer in charge has added no small amount to the efficiency of one of the most important means of clinical study.

That many physicians appreciate the privilege so kindly extended to them, may be seen by the following figures: In the year 1880–81, 1,667 thermometers were tested; in 1881–82, 3,811, and in 1882–83, 5,140. The cost is only 50 cents per instrument, and there is, therefore, no reason why every doctor in the land should not have a correct thermometer.

A TRACHEOTOMY TUBE, for gradual Withdrawal, and Report of a Case in which it was used. By H. F. Hendric, M.D., of St. Louis. Reprint. St. Louis Medical Journal Publishing House. 1883.

"The tube is of the ordinary tracheotomy shape, with a short external tube intended to reach only through the tissue down to the trachea, but not into it. Through this the long tube with the long fenestra is made to slide, and is held by a friction-clamp confined by a screw in such a way as to be removed gradually, and, as the screw tightens the clamp on to the tube, it may be retained at any depth required."

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY FOR 1883. No. 3, Vol. 8. Geo. E. Ranney, M. D., Secretary. Lansing: W. S. George & Co. 1883.

It is evident from this report that the society at its last meeting did its full quantum of work. The attendance was an average one and the proceedings interesting, while the papers, though comparatively few, were carefully prepared and full of practical hints for the physician.

NINETEENTH REPORT OF THE TRUSTEES OF THE CITY HOSPITAL, BOSTON, with Reports of the Superintendent and Professional Staff, Rules for Admissions and Discharges, etc. 1882–83. Boston: Rockwell & Churchill.

This is a full report of good work done in one of the best managed institutions in America.

THE HYGIENE OF EXPOSURE. Being the address in Hygiene, delivered at the thirty-fourth annual meeting of the Medical Society of the State of Pennsylvania, at Norristown, Pa., May 10, 1883. By Henry Leffman, M.D., Professor of Clinical Chemistry and Hygiene in the Phila. Polyclinic.

THE PLANET: a Monthly Journal of Medicine and Pharmacy. Vol. 1, No. 8. New York, August 15, 1883. Dr. C. E. Nelson, editor and proprietor.

THE PRINTER'S JOURNAL. Vol. 2, No. 3. St. Louis: August, 1883.

Formulary.

HYDRATED OXIDE OF IRON.—Dr. Squibb recommends the following as a simple method of preparing hydrated oxide of iron, the antidote for arsenic, one of its chief advantages being that the ingredients are always easily obtained:

℞ Tinct. ferri chloridi, ... ℥ iv;
Aquæ font., ... ℥ iv;
Mix in a vessel of ℥ xij capacity,
And add aqua ammon., ℥ ij.

Shake well, pour on a large wet muslin drainer, wring out the water and alcohol and wash with fresh water. The stomach having been evacuated by emetics while the antidote was being prepared, give four fl. ounces at once, to be followed by an emetic. Then give two ounces every ten minutes.

HEMOSTATIC PILLS.—The following formula is given by *L'Union Medicale*, for Gueneau de Mussey's Hemostatic Pills:

℞ Extract of rhatany, ... ℥ j;
Powdered ergot, ... gr. xlv;
Powdered digitalis, ... gr. viij;
Ext. of hyoscyamus, ... gr. iv.

M. Divide into twenty pills, and take from four to six during the twenty-four hours. —*Medical Age.*

IODOFORM TROCHES.—The *Medicin Chir. Centr. Blatt*, gives the following as the most convenient form for internal administration of iodoform: (Weekly Drug News.)

℞ Iodoformi, ... 5.00 parts;
Sacchari, ... 100.00 "
Ol. menth. pip., ... 0.15 "
Tragacanth, ... 0 25 "
Glycerini, ... 1.00 "
Aqua, ... q.s.
M. Ft. trochisci 100.

MOIST HANDS AND FEET.—For relief of this annoying affection Dr. C. J. B. Wallis recommends the following:

℞ Acidi salicylici, ... ℥ij;
Naphthol, ... ℥ij;
Pulv. amyli, ... ℥iv;
Misce et adde olei eucalypti, ... ℥ij;
Pulv. terræ cimoliæ (Taylor's), . . ℥iv.

The parts should be previously washed with twenty-per-cent carbolic soap.

CHLORAL IN A NEW RÔLE.—Bonatti (*D. Med. Zeitung.*), recommends the following as a safe drastic cathartic:

℞ Infus. sennæ, ... fl ℥ x;
Chloralis. hydt., ... gr. xxiv-l;
Syrupi, ... fl ℥ j.

Selections.

RESORCINE IN TREATMENT OF HOOPING COUGH.—Dr. Moncorvo, Professor of the Diseases of Children in the Polyclinque of Rio de Janeiro (*Uniao Medica*), advocates the topical use of resorcine in the strength of one per cent, applied by a fine pencil brush to the larynx. He gives fourteen cases, varying in severity and duration, in which this remedy was found highly serviceable. The following are his general conclusions:

1. That hooping cough, whose nature, up to a very recent period, has been subjected to the most diverse interpretations in relation to its genesis, may, to-day, according to the latest microscopic researches, be included in the class of parasitic diseases.

2. That the disease appears attributable to the presence of micrococci which multiply prodigiously in the hyperglottic vicinity of the larynx, infiltrating its epithelial cells, which appear to be the predilective seat of their development.

3. That resorcine, applied to the laryngeal mucous membrane, caused in all the cases in which it was employed rapid decrease of the number of paroxysms, moderation of their intensity, and finally recovery in a short period of time, without the aid of any other medication.

Dr. Moncorvo says that resorcine, owing to its much less caustic action, and the absence of disagreeable taste and odor, is far preferable to carbolic acid. He has administered it internally to children, even the newly born, suffering under diarrhea and dysentery. He advises that strict attention be given to the quality, so as to secure the article in purity, and he recommends that prepared by Monnet, of Geneva, which is of notable whiteness, and in the form of silvery bright crystalline needles. It is extremely soluble in water. Dr. M. recommends its topical application with the fine pencil brush, to be repeated every two hours. The first applications, he says, sometimes exacerbate the coughing fits, but this irritation ceases in two or three days. In twenty cases treated by him he was not disappointed in his expectation in a single instance, and some of them had been very obstinate, or even dangerously complicated, as with hereditary syphilis, threatened hydrocephalus, pulmonary tuberculosis, intermittent fever, etc.

Resorcine, in its source being a congener

of carbolic acid, no doubt acts in a similar manner as a parasiticide. Dr. Moncorvo states that he has, by numerous microscopic examinations of the sputa expectorated by his patients laboring under hooping cough, verified the statements made by Letzerich, Henke, Steiner, Hagenbash, and other writers, as to the parasitic character or complication of the disesse. The treatment advocated by him is therefore free from all insinuation of empiricism, and, as we understand the article to be inexpensive, it will no doubt soon be largely sought after.—*The Canada Lancet.*

Injection of the Puerperal Uterus.—In commenting upon a paper on the injection of antiseptics after abortion or labor, read before the Med. Society of the county of New York, Dr. Paul F. Mundé said that for several years he had had most positive convictions on the subject, and had followed a decided practice in the treatment of puerperal septicemia. Since Dr. Chamberlain introduced the long glass tube known by his name, he (Dr. Mundé) had made it a rule to inject every puerperal uterus as soon as the temperature rose above 102° F., whether the lochia became offensive or not. He continued these intrauterine injections (of a two-per-cent solution of carbolic acid) three or four times daily until the temperature was permanently lowered, or until their inefficiency became evident. He had thus repeatedly reduced the temperature from 105° to 102° from 103° to 98°; the pulse in proportion. He had seen the temperature remain down for a while — but, again and again, he had seen it go up, and finally stay up, in spite of his injections. It was true, he had not repeated them so often as Dr. Wylie had done, and perhaps his occasional bad result had been due to this fact. In future he would certainly follow Dr. Wylie's plan in intractable cases.

But he would like to direct attention to the fact that in all cases of puerperal septicemia there was a time when intrauterine injections not only did no good, but were even positively injurious, viz: (1) In cases where the lochia were not at all offensive, and the seat of infection seemed already to have spread to the perimetritic tissues, and to lie beyond the reach of intrauterine medication. (2) Where the injections had been used faithfully for a period of from forty-eight to seventy-two hours, with little or no benefit—certainly no lasting benefit. In both these sets of cases the disease had already advanced beyond the scope of local remedies, and in those of the second category the injections even seemed to provoke a traumatic rise of temperature; he had known the frequent introduction of the tube and the injection of medicated fluids to do harm and to be followed by more or less hemorrhage. But in a fresh case of puerperal septicemia, or indeed in any case where there was a rise of temperature, especially if the lochia were fetid, his first step was to wash the uterus, repeating it as often as the temperature seemed to require; and the results in many cases had been so surprising, so immediate, and so beneficial as to make him feel the greatest confidence in the treatment. In a few cases, it was true, it had failed, but those were mostly cases to which he had been called in consultation at a late period in their course. In the very few cases in which the injections had failed and yet the patient had recovered, the salicylate of sodium, in ten-grain doses every two hours or oftener, had seemed to produce a permanent reduction of temperature, followed by recovery even after failure with the largest doses of quinine.—*Am. Jour. of Obstetrics.*

The Treatment of Dilatation of the Stomach.—Under the title of gastritis, atrophy, and dilatation of the stomach, Dr. James Russell records the case of a man, aged twenty-six, whose symptoms extended over a period of ten years, dating from an acute attack of ill-defined nature, probably gastritis. "This attack permanently changed the digestive power of the stomach; from that time the patient lost the ability to assimilate animal food, with the important exception, however, of milk. Ten years afterward I found that meat, finely comminuted and given in small quantity, remained for two days in the stomach, and was then rejected, unchanged." The patient was thin, but not cachectic, and there was considerable dilatation of the stomach. It was found that, even when tried most carefully, all kinds of solid albuminoid food were ejected after a more or less brief stay in the stomach. Milk alone could be retained. Of some substances (*e.g.*, cod-liver oil) the stomach was exceedingly intolerant, and immediately rejected them. Washing the stomach out by means of the syphon-tube was tried, but it produced considerable distress, and did no good. In the ordinary forms of atrophy of the stomach, the peptic glands are the chief sufferers, and the pa-

tient is able to assimilate the hydrocarbons. In this case, however, the patient was very thin, and unable to digest any thing but milk; a condition of subacute or chronic gastritis was constantly kept up, and as a result of these changes and the impaired general nutrition which necessarily followed, a state of dilatation of the stomach was induced. This, of course, tended to keep up the mischief by permitting the accumulation of food in the stomach and favoring its decomposition. The remedy for this state of things employed by nature is vomiting, and cleansing the stomach by means of the syphon-tube is therefore the proper line of treatment to adopt. In the case above alluded to it failed, probably in great measure owing to the organic changes that had taken place in its structures. The value of washing out the stomach in cases of dilatation of that body is well shown by three cases which have been under my treatment, in one of which the patient found such relief from it that he sometimes resorted to it twice a day.—*Birmingham Medical Review.*

"Discharging Lesions" in Epilepsy.—The "region" represented by the highest centers (the climax of nervous evolution) is the whole body; each of the innumerable terms of these centers, it is supposed, represents the whole organism in a different way from every other of the terms. Epilepsy proper is owing to "discharging lesions" in parts of these centers: we speak at present of severe paroxysms—of *le grand mal.* It is inferred that there are numerous epilepsies ("varieties" of epilepsy proper), as many, at any rate, as there are different "warnings" of what we call the paroxysms; for different "warnings" of necessity point to "discharging lesions" differently seated. No one denies that there are varieties of epileptiform seizures; these occur from differently seated "discharging lesions" in the middle motor centers. It would be very remarkable were there not differently seated "discharging lesions" in the highest centers, and hence many different epilepsies. If one patient's epileptic seizures always begin by an epigastric sensation, and in others always by a particular kind of vertigo, the "discharging lesions" must be differently seated in the highest centers in the two cases. We may be as certain of this as that the "discharging lesion" is in different parts of the middle centers in two patients, in one of whom epileptiform seizures begin in the foot, and in the other in the hand. Different epileptiform seizures have their particular places of onset, degrees of involvement of particular parts, and orders of spreading. It is supposed similarly that in each epilepsy the severe convulsion, although universal, differs somewhat in its exact onset, degree of involvement of particular parts, and order of spreading from the severe convulsion in any other epilepsy. *Mutatis mutandis*, for the effects of "destructive lesions," it is supposed that there will be different *slight* universal paralyses, according to the particular part of the highest centers destroyed.—*J. Hughlings-Jackson, M.D., F.R.C.P., in Medical Press.*

Purpura.—True purpura is a so-called "idiopathic" disease, the cause of which is as obscure as are the causes of leucocythemia and "pernicious" anemia. It attacks persons of all ages, from early childhood to the decline of life, males and females in equal proportion, those who are apparently in good health as well as such as are already ailing; and, so far as I know, its appearance is independent of local sanitary conditions and dietetic errors. It has, moreover, a tendency to recur, and I have notes of several cases in which children have been brought to me, at intervals of some months, suffering from two or even three recurrences. Purpura is commonly divided into two varieties, namely, purpura simplex and purpura hemorrhagica.

The treatment of purpura is as unsatisfactory as are its causation and pathology. Antiscorbutic remedies have been largely employed in consequence of a belief which prevails (but seems unfounded) that the disease has a close causal relation to scurvy. Other remedies are tonics and astringents; and, though I acknowledge some skepticism as to their special efficacy, it is in such medicines that, in the present state of our knowledge, we are compelled to trust mainly.—*Bristowe.*

Treatment of Croup.—Mr. Jules Simon, of the Hopital des Enfants Malades, treats croup as follows (Medical Press): As soon as the malady is diagnosed he touches the throat with lemon-juice, or a solution of muriate of iron, every two hours. Every three hours he washes the part affected with a solution of borax (two drams to ten ounces). At the same time the atmosphere of the room is charged with atomized phenic solution, a stimulant nourishment is given, and three to five drops of tincture of iron

administered every three hours. When dyspnea becomes apparent an emetic is to be given, but if the symptoms are not relieved tracheotomy must be performed without delay. The results of the operation are not very satisfactory, however, since, when the child is under two years, a fatal termination is the rule, whereas, in children above that age one out of five recovers. The after-treatment consists in placing a piece of tarlatan over the canula, warming the room, and administering beef-tea and tincture of iron. The removing and cleaning of the canula should be done by an experienced person; it might be definitely removed after the eighth or tenth day. M. Simon considers that chlorate of potash is of little use in croup.

ACTION OF TANNIN ON PARAMECIUM.—H. J. Waddington states, that, by bringing a drop of a solution of one part tannin in four parts glycerine in contact with a drop containing a Paramecium, the motion of the animal is stopped, and the cilia become beautifully distinct. They appear quite straight and surprisingly long, equal to the short diameter of the body. Previous ideas as to the size and number of the cilia have been very incorrect. To kill infusoria he recommends a saturated alcoholic solution of sulphurous acid; for, if a small quantity be added to water, the gas is set free, and the animals in the water poisoned. He also reports an ingenious device to catch infusoria: crumbs of very hard baked biscuit are put in the water, where they will be held up by confervæ; fungoid growths spring from each crumb, the infusoria collect between the filaments as in a favorite resort, and the whole colony may be captured by pulling out the crumb.—*Journ. Royal Micros Society, Lond: Science.*

MOLECULAR LAYER OF THE RETINA.—According to Bellonci, the formation of the inner molecular layer of the retina begins in the chick on the eighth day of incubation. At that time there is a special row of clear cells just outside the layer. The cells in the situation of the layer disappear on the ninth day: the clear cells undergo fatty degeneration of the nucleus, and disappear by the twelfth day. They form the molecular layer, which, however, continues to enlarge. Both the inner and the outer molecular layers are penetrated by optic nerve-fibers. Thus is produced a structural relation with the molecular layers of the brain.—*Science.*

NAPELLINE AS A SUBSTITUTE FOR MORPHINE.—Napelline, an amorphous alkaloid obtained from aconite root, has been successfully used by Laborde to relieve neuralgia pains, and as a substitute for morphine in a case of the morphine habit. It was given hypodermically in doses of from one to four centigrams in the twenty-four hours. *Journ. de Therapeut.*

OXIDE OF ZINC AS A SUBSTITUTE FOR IODOFORM.—In the treatment of wounds Dr. Peterson, of Kiel, considers zinc oxide a good substitute for iodoform. It is cheaper, and is not poisonous.—*Medical Times.*

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, U. S. A., from August 11, 1883, to August 18, 1883.

Baxter, Jedediah H., Chief Medical Purveyor, U. S. A., to proceed to San Francisco, California, *via* St. Louis, Missouri, on public business connected with the Medical Department, and on completion thereof will return to his station. (Par 1, S.O., 185, A.G.O., August 11, 1883.) *Burton, Henry G.*, Captain and Assistant Surgeon, relieved from duty at Fort A. Lincoln, D.T., and assigned to duty at Fort Assinniboine, M. T. (Par 1, S.O., 141, Department of Dakota, August 11, 1883.) *Barnett, Richard*, Captain and Assistant Surgeon, granted leave of absence for one month, on surgeon's certificate of disability. (Par 2, 149, Dept. of the East, August 10, 1883.) *Benham, R.B.*, First Lieutenant and Assistant Surgeon, relieved from duty at Fort Assinniboine, M. T., and assigned to duty at Fort A Lincoln, D. T. (Par 2, S.O., 141, Department of Dakota, August 11, 1883.)

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, U. S. A., from August 18, 1883, to August 25, 1883.

Clements, Bennett A., Major and Surgeon, relieved from duty with the Army Medical Examining Board, New York City, N.Y. (Par 11, S.O., 193, A.G.O., August 22, 1883.) *Middleton, J. V. D.*, Major and Surgeon, relieved from duty at Fort Hays, Kansas, and assigned to duty at Fort Leavenworth, Kansas. (Par 2, S.O., 169, Department of Mo., August 18, 1883.) *Williams, John W.*, Major and Surgeon, granted leave of absence for one month, on surgeon's certificate of disability. (Par 1, S.O., 109, Department of the Columbia, August 8, 1883.) *Bartholf, John H.*, Captain and Assistant Surgeon, assigned to temporary duty at Vancouver Barracks, W. T. (Par 2, S.O., 109, Department of the Columbia, August 8, 1883.) *Finley, J. A.*, Captain and Assistant Surgeon, relieved from duty at Fort Concho, Texas, and assigned to duty at Fort Stockton, Texas, as post surgeon. (Par 1, S. O., 101, Department of Texas, August 16, 1883.) *Kimball, James P.*, Captain and Assistant Surgeon, relieved from duty in the Department of the Platte, and to proceed to New York City, and report in person to the president of the Army Medical Examining Board for duty as a member of that board, *vice* Surgeon Clements, relieved. (Par 11, S.O., 193, A.G.O., August 22, 1883.)